

## TM 706 – CRYSTAL VIOLET LACTOSE BROTH

### INTENDED USE

For detection of coliforms in water filtration control works.

### PRODUCT SUMMARY AND EXPLANATION

The extent to which total coliforms are present in the source water can indicate the general quality of that water and the likelihood that the water is faecally contaminated. Total coliforms are currently controlled in drinking water regulations (i.e. Total Coliform Rule) because their presence above the standard indicates inefficacy in treatment or in the distribution system. Environmental Protection Agency (EPA) requires all public water systems to monitor for total coliforms in distribution systems. If coliforms are found, then the public water system must further analyze coliform-positive sample for specific types of coliforms (i.e., faecal coliforms or E. coli). EPA is increasing protection from pathogens in surface water systems as part of the Interim Enhanced Surface Water Treatment Rule. Crystal Violet Lactose Broth is used for the detection of coliforms in such water filtration control works.

### COMPOSITION

Ingredients	Gms / Ltr
Peptone	5.000
Lactose	5.000
Dipotassium hydrogen phosphate	5.000
Potassium dihydrogen phosphate	1.000
Crystal violet	0.00143

### PRINCIPLE

The media contains proteose peptone and peptone as sources of carbon, nitrogen, vitamins and minerals. Dipotassium hydrogen phosphate and Potassium dihydrogen phosphate provide buffering to the medium. Lactose is the carbon and energy source. Crystal violet inhibits most of the gram positive organisms.

### INSTRUCTION FOR USE

- Dissolve 16 grams in 1000 ml purified /distilled water.
- Distribute in 10 ml quantities in tubes with inverted Durhams tubes.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- If the inoculum is more than 1 ml double or multiple strength media must be used.

### QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to light tan homogeneous free flowing powder.
Appearance of prepared medium	: Light purple coloured, clear solution in tubes.
pH (at 25°C)	: 7.4±0.2

### INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of medium	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Good-luxuriant	Purple	35-37°C	40-48 Hours
<i>Staphylococcus aureus</i>	25923	50-100	None-poor	Light yellow	35-37°C	40-48 Hours
<i>Staphylococcus epidermidis</i>	12228	50-100	Fair-good	Purple/ very slightly yellow	35-37°C	40-48 Hours
<i>Streptococcus pyogenes</i>	19615	>=10 <sup>3</sup>	Inhibited	-	35-37°C	40-48 Hours

**PACKAGING:**

In pack size of 500 gm bottles.

**STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.










**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

**REFERENCES**

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

\*For Lab Use Only  
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